

CHRONOLOGY
(as narrated by DEQ employee, Kreg Beck)

Gregg Rapp (Potlatch): 245-6433

- 8/94 CO for remediation of site was signed.
- 10/28/94 Probable date when pumps first went into operation.
- 12/1/94 I take over oversight lead from DEQ employee, Brian Painter
- 12/8/94 Brian and I both spoke to Gregg Rapp on the phone. Gregg stated that all of the water wells have been working at the recovery site but that the oil pumps had a wiring problem. They had an electrician out to fix them and all pumps are now working but they are all set at the wrong height. All pumps have recently been shut off and Gregg planned to go to the site today to bleed the system. They plan to shut down till probably sometime in April.

Brian asked if they had "sticked" the recovery tank lately. Gregg said the recovery tank is full of water and they may not have recovered any hydrocarbon. Again, the problem was attributed to pump height settings and big rain events right after the pumps were initially set.

Gregg felt there was quite a bit of product in the sumps (trenches). Brian asked if they couldn't reset the oil pumps and pump that product out before shutting down. Gregg said he planned to talk to Hart-Crowser today and see if that would be a possibility.

I asked how the boom and pad situation on the river was going. Booms were pulled out of the river, apparently over a month ago, because of heavy rains. They don't plan on putting the boom back in till this Spring. Gregg has recovered about a half barrel of used pads which he plans on storing at the site this winter. He said he plans to have the guy Brian recommended do pad maintenance starting this Spring.

12/9/94 According to H-C, the Free Product Recovery System (FPRS) was shut down on this date.

- 1/3/95 Gregg Rapp called. Have had a couple conversations w/ him over the past couple weeks about submittals required by the consent order: (1) plan & spec submittals, (2) gw monitoring submittals, and (3) a project implementations schedule.

Gregg called to say he has received "as-built" plans from Hart-Crowser (H-C) and will be forwarding them to me shortly.

4/10/95 FPRS started up.

4/11/95 Site visit to witness start up of recovery system. Pumps broke. Having new ones custom built. Greg said they would be ready in about 2 weeks.

6/9/95 Tried to call Rapp to see if they ever got new pumps installed.

6/13/95 Greg Rapp returned my phone call but I wasn't in.

6/14/95 Tried to call Greg again; requested he call me later this day or on 6/16.

6/15/95 Greg called but I wasn't in. He left a message that the system is still not running.

6/16/95 Tried to call Greg again - left a message.

6/20/95 Finally connected w/ Greg. He said Hart-Crowser has been up a couple times working on those pumps. They finally got the operation running but very little oil is being pumped. H-C said the system just isn't going to work very well if there is less than 2" of product. They have never measured the product thickness in the wells so that is their next project. He said there is still no booms in the river because the flow is too high.

6/30/95 H-C states that they have recovered a total of 60 gals of product at this point.

7/7/95 Spoke w/ Greg Rapp. He said H-C was up last week and did the quarterly monitoring. They did do some product measuring in the trenches and a couple of them did have product 3 or 4 inches thick. Pump #4 in the furthest upstream trench has pumped 40-50 bbls of product now. Arranged to go w/ him on site next Wednesday, 7/12/95. He said he still hasn't put the booms in the river due to high water.

7/12/95 Site visit; no booms in the river.

8/2/95 Site visit; still no booms on the river. Received 1st qtrly report on the FPRS.

10/18/95 Received 2nd quarter report for 1995.

12/31/95 H-C claims they have recovered 100 gals of product to date.

1/2/96 Greg Rapp called. He said that since nothing has been going on down there, I wouldn't be getting a quarterly report. He doesn't know if the old booms were ever removed off site. He stated that the river was boomed at least part of the '95 season. He thinks that approx. 200 gals of petroleum have been recovered to date. He said an annual report will be coming shortly.

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- 5/16/96 Spoke to Greg briefly. He said he would call me tomorrow so we could go over the status of the site.
- 5/23/96 Greg called me back. We went over all my questions/concerns and either resolved them or Greg is looking into them and will get me an answer. I again reminded him to contact me prior to sampling or system start up. He said he is planning a meeting w/ ourselves, Techcon, and H-C, to discuss remediation alternatives.
- 6/20/96 Hadn't heard back from Greg so called him. He stated the system is now running. He promised to call me tomorrow w/ some additional answers.
- 6/21/96 Greg called. He said that tentatively, the week of July 7 is when H-C will be out and we could schedule a meeting/site visit for that week. He said he would call me again next week. He said the recovery system was turned on sometime around the first of this week. He said the booms would be going into the river soon.
- 7/12/96 Brian Painter and myself made a site visit on 7/11/96. Met Greg Rapp and Terry Montoya at the Potlatch office in St. Maries, discussed the site, then drove out to site and witnessed the gauging of oil/water in site wells and the storage tank. I stated that (1) the recovery system was supposed to be operating all the time and it hasn't been, (2) we haven't been getting notified prior to quarterly monitoring events or when the system breaks down, and (3) first quarter monitoring events shouldn't be starting in July. Greg stated that those were indeed mistakes they have made in the past but could we try to start from here doing it right. We agreed to that.

One small area along the river has been recently boomed. One small area of faint sheen outside the boomed area was spotted. Old booms were apparently taken off the site and burned in Potlatch boilers. Greg said this was an approved/acceptable method of disposal.

Wells HC-2 and HC-3 do not exist any more; apparently were destroyed during the construction of the recovery trenches. Historical search of files indicates that well # HC-1 is the same as well # HC-1R. The other 5 wells were monitored while we were there and one product pump was re-adjusted (# 3 or 4). In Brian's opinion, the 5 wells that can still be monitored are sufficient to yield quality data on the effectiveness of the capture zone of the extraction wells.

We specifically requested they submit a water contour map off the September monitoring event of this year.

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The monitoring and report schedules were changed for the remainder of this year

and are noted on the "projection schedule" in the 1/26/96 Annual Report, in the file.

- 8/9/96 First quarter performance report for 1996 received.
- 9/20/96 Attempted to call Greg Rapp to see if second quarter monitoring had been completed. He wasn't in; left a message.
- 9/24/96 Called Gregg Rapp again as well as Terry Montoya at H-C. Didn't connect w/ either. Left messages.
- 11/4/96 Gregg called to say they planned on monitoring tomorrow. He said booms were still in river and that the recovery system had been running pretty steady although they are apparently not recovering much.
- 11/5/96 Discovered they lost another monitoring well, MW-4, from road construction.
- 5/28/97 Site visit. System did not appear to be running. No booms in river. Gauged tank and it showed approx 20" of product on gauging stick.
- 6/4/97 Spoke w/ Greg Rapp. Indeed, the system has not been started up yet this year. Greg said they planned to start it up next week. I told him if the system isn't going to run all year, we may need a submittal from them justifying why it is not.
- 8/19/97 Site visit. Couldn't detect that any pumps were running but did seem to be a little more product in the tank; approx 26". Some booms were in the river; no sign of any sheen entering river.
- 8/20/97 Attempted to call Greg Rapp; LAM for him to call me back.
- 8/21/97 Greg Rapp called back but I didn't get the message until 8/22.
- 8/22/97 Tried to call Greg; he wasn't in; LAM.
- 8/28/97 Finally connected w/ Greg. They did another monitoring in early July. I never got the report so Greg promised to get it sent to me. Greg said the system is running. Next monitoring event is scheduled for early October. Greg promised to notify me prior to the event.
- 10/9/97 On site for quarterly monitoring.
- 12/9/97 Called Greg Rapp and LAM inquiring where 2nd quarter monitoring results were.
- 12/15/97 Never heard from Greg so called again and LAM w/ the front desk. Greg called later in day. He managed to get the copy to his office last week. He will review

and send back to H-C. I should get it next week.

- 1/5/98 Greg R. called and asked me if I had gotten the qtly report yet. I told him "no". He said he would follow up and get it on its way.
- 1/14 Still haven't received the qtly report. Called Greg and LAM on his machine saying as much.
- 1/20 Received qtly report.
- 4/20 Called Rapp to see where 1997 annual report is at and why they have sampled yet this year (or at least notified me, if they did). He wasn't in so left another message.
- 4/21 Gregg called me back. Doesn't sound like the system is currently running nor does there seem to be any definite plans to get it running or do any quarterly monitoring.
- 5/29 Letter sent to Potlatch requiring them to respond to why they have not been meeting the terms of the CO.
- 6/11 Greg Rapp called. He said he would be sending me a response to my 4/29 ltr next week. He said the first quarter monitoring is scheduled for June 25th.
- 6/22 Received Greg's response on 4/29; he would like to schedule a meeting.
- 6/23 Called Greg; he wasn't in; LAM asking whether July 7 or 8 would work, for him, for a meeting date.
- 7/20 Norm Linton and Greg Rapp came to the DEQ office and met w/ J. Sutherland, Brian P., and Kreg B. to discuss the ineffectiveness of the current remediation system.
- 7/24 Spoke to Greg Weigel of EPA who promised to try and find me a contact in EPA. He called back the week of 7/27 and had found a contact by the name of Greg Powell. Mr. Powell mentioned steam injection or a "thermal blanket" (inserting electrodes in the ground) as tried and proven methods to move heavy oil in the ground. Mr. Powell would like some info on this site. I will send it to Greg Weigel at: USEPA, 1435 N. Orchard St., Boise, 83706.
- 7/31 First Quarter 1998 Performance Report, dated 7/29/98, was received.
- 8/3/98 Letter sent to Rapp and Linton that summarized the meeting of 7/20/98.
- 8/5 Reviewed and filed 7/31 Performance Report.

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- 2/26/99 Received Annual Performance Report.

- 11/4/99 On-site visit. Greg Weigel and Greg Powell of EPA, Greg Rapp, Norm Linton, and John ? of Potlatch, Brian Painter, and myself. Trying to think of options for cleaning up this site.
- 12/2/99 On site for quarterly monitoring. Several pictures taken of sheen on the river. Discussed remediation alternatives that will be discussed at a general meeting in early February.
- 12/3/99 E-mailed Greg Weigel at EPA, asking him if he could have Greg Powell of EPA provide information for general meeting and asking Greg if the date, 2/2/2000 would work for a time for the meeting.
- 1/14/2000 Reset the date of the meeting sometime between now and last entry. Received an e-mail from Greg W. yesterday on a stabilization technology. Called the co. today, as well as faxed them some basic information on the site. The company is Geocon. The guy I talked to is "Vinod". Their fax is (813) 626-4049. The contact there that Greg gave me is Bob Schindler. Office phone: (813) 626-0751.
- Called Greg Rapp. Asked that he call me back. Asked if he could get any of their remediation plans for the site to us before the meeting so we could look them over.
- 1/27 Re-set the date of the meeting to 2/15/2000 then to 2/17/2000.
- 2/11 Received a letter from Greg R. at Potlatch on what they would propose to do on site in place of the current remediation system. All it amounted to was a stream bank remediation proposal.
- 2/17 Met w/ Potlatch to discuss alternate remedial measures at the site. People present were Norm Linten and Greg Rapp from Potlatch, John Sutherland and myself from DEQ, and Greg Weigel from EPA. John Emery of Potlatch joined us via telephone. Main points agreed on was a new site characterization and stream bank remediation. Depending on what site characterization shows, other options such as stabilization, extraction, and containment will be looked at.
- DEQ needs to contact Fish and Game, Water Resources, and possibly IDL- on a state level- regarding the stream bank alteration. Greg Weigel of EPA will contact Mike Doherty of the Corps of Engineers to see what will be required from them. He will work on arranging a conference call for next week.
- It was generally agreed during the discussion that a Site Characterization should be done in June, 2000 and stream bank alteration work be done in late August.
- 2/22 Drafted a letter to Potlatch about a CO modification to incorporate a change in remediation strategies.

Greg R. said their permit (404) is about a 90 day process and though things will be tight, he thought it was doable. Norm has requested the stream alteration permit from IDL.

Norm said he should have the site characterization plan to DEQ by the end of this month and the 404 application to the Corps by 1st of June.

I asked Norm to try and have the CO Mod. signed w/i a week. He said he would try to get that done.

Norm will take Greg Rainer and possibly Rick Donaldson of US Fish and Wildlife to the site in about 2 weeks. Greg's main concerns are turbidity and fish habitat issues.

Norm called back later to say that he will be on site with the Corps and US Fish & Wildlife on May 3. He also said that Potlatch will be staying w/ H-C for the modified remediation.

5/18 Tried to call Gregg R. to ask him where the last qtr's monitoring report was. LAM.

5/22 Issued a comment ltr on Site Characterization Plan.

5/23 Tried to call Rapp again about the monitoring report.

6/6 Norm called. They will begin site characterization on 6/12. Norm will send me a letter acknowledging my comments on SCP.

6/12 Site visit. Several pits dug. Notes and photos taken. Today's events were part of a new Site Characterization process.

6/14 Called Norm L. to see if they were still digging pits on site (to see if I should make a trip down there). He said they had pretty much finished up yesterday and were just cutting off and capping the wells today.

A Lisa Hawdon w/ USFS in Avery called. She wondered if the contamination problems from this site might impact their property which is immediately W of the Potlatch property. Apparently they are going to do some building there this year. I told her I did not see a contamination problem for their property.

7/24 Called Greg Raynor of the Corps to see how the comment period for Potlatch's streambank alteration permit was going. He will e-mail me the latest letter he sent to Norm Linton. He said the current hangup is US F&W's concern over endangered species.

8/7 Tried to call Norm to see how the permitting process is coming on his end. LAM for

- 9/18 Called Norm L. Terry M. was there also. Again discussed what to do w/ highly contaminated soils that are excavated and the possibility of more extraction wells. Terry felt that phytoremediation of contaminated soils was the way to go. I stressed that if this is a valid process, the PCS would, at the very least, have to be spread in a thin layer for the grass to phytoremediate it. They seemed to agree that if petroleum was found on the water table in significant quantities (1" or greater) they would install additional extraction wells.
- 9/19 BP went to site.
- 9/25 Site visit. Photos and field notes taken.
- 9/27 Site visit. Photos and field notes taken.
- 10/23 Spoke to Norm Linton. He said the liner project was completed on Oct 12. He said the liner was extended to the W because they ran into an area of contaminated soils in area of the old interceptor trench #1. He said they would be grass seeding the site either this week or next and planting trees in the Spring.
- The next scheduled monitoring event is for November 8.
- 11/8/00 On site for first monitoring event after bank rehabilitation. No sheen in river and only a thin sheen in the worst of the monitoring wells.
- 12/14/00 On site for second monthly monitoring event. Took metal detector and tried to find monitoring well # HC-1 but didn't have any luck. Still no trace of petroleum in river. Potlatch was unable to get an oil thickness reading in at least 3 of the wells because the probe would not "clean up" in the water.
- 12/28/00 Called Pine Environmental and spoke to a "Bob" who had a suggestion for using the probe in the wells where oil/water interface was undiscernable. He said to put vegetable oil on the probe, lower the probe thru the oil layer and about 3' into the water column. Once the "water indicator beep" was working properly, let probe stay in the water 15-20 minutes then slowly pull up to get the oil/water interface. This would mean dropping the probe at least twice in these wells; once to get the top of the oil and once to get the oil/water interface.
- Tried to call Norm Linton to let him know about this technique; LAM for him to call me.
- 1/1/2001 Spoke to Norm about the above technique. He said they would try it this month when they do site monitoring.
- 1/12/01 Tried to call Norm back. He had LAM wondering if I had received H-C's report on the stream bank remediation. I LAM w/ him that I had not received this report or any

9/29/02 Had talked to Norm and scheduled 9/30/02 as the day to do the monitoring. Norm called me at home this evening and let me know that tomorrow was not going to work for him. He said he would call later to firm up a different date.

10/4/02 Had a message from Norm that they would be monitoring today. Message was left yesterday. I was home recovering from minor surgery on Wed. Called Norm and LAM that I wouldn't be able to make it.

11/1/02 Norm stopped in and dropped off the results of the monitoring they did on 10/4.

3/28/03 Tried to call Norm to schedule a visit to the site next week; LAM.

4/2/03 Met Norm Linton and Don Green on site. There was a light petroleum film on collection wells 2 and 6. Norm put absorbant pads in collection well #6. Also checked on vegetation that was planted 2 years ago. Probably less than half are still alive. Norm said he would mail me a key so I can check recovery wells any time I am out in that area.

9/26/03 Norm had called on 9/22 to let me know they would be sampling today. Since I was out all week, cannot make it today but called Norm and LAM that hopefully we could discuss his sampling visit next week.

11/24/03 Tried to call Linton. Never saw results of this Fall's sampling so LAM asking if he ever sent those in.

12/5/03 Norm stopped by and delivered this Fall's sampling results. He is real interested in these "little white worms" that seem to be living in the oil film on top of the water. I said I would ask around and see what anyone knew of this phenomenon. He also gave me a key so I can look in the monitoring wells anytime I am in that area.